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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,154	01/03/2005	Katsuyuki Totsu	F-8525	5545
28107	7590	12/29/2005	EXAMINER	
JORDAN AND HAMBURG LLP 122 EAST 42ND STREET SUITE 4000 NEW YORK, NY 10168			NGUYEN, TRAN N	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/520,154

Applicant(s)

TOTSU ET AL.

Examiner

Tran N. Nguyen

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 5-7 is/are rejected.
- 7) ☒ Claim(s) 3,4,8 and 9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

2. **Claim 5 and 7** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 5, “the both” is indefinite because it is unclear and lacks antecedent basis. In light of the spec, “the both” is understood as “said wall section and said cylindrical core section”.

In claim 5, “the groove sections” has unclear antecedent basis. It should be “the U-shape groove sections”.

Appropriate corrections are required.

In claim 7, the phrase “coils are formed by winding ... therein” is indefinite because it does not further set the structural limitations of the device but rather reciting the method of forming the coil. A "product by process" claim is directed to the product per se, no matter how actually made, *In re Brown*, 173 USPQ 685; *In re Luck*, 177 USPQ 523; *In re Fessmimn*, 180 USPQ 324; *In re Avery*, 186 USPQ 161; *In re Wertheim*, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); *In re Marosi et al*, 218 USPQ 289; and particularly *In re Thorpe*, 227 USPQ 964, all of which make it clear that it is the patentability of the final product per se which must be determined in a "product by process" claim, and not the patentability of the process, and that an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or not. Thus, the method of forming a device is not germane to the issue of patentability of the device itself.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claim 1** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Komatsu Fumito (JP-2000-166287)** in view of **Bernauer et al (US 6,329,736)**.

Komatsu Fumito substantially discloses a four-pole synchronous motor comprising:

a cylindrical magnet rotor having four magnetic poles, said magnet rotor being supported in a housing and capable of rotating about an output shaft;

a stator, through which the output shaft is pierced, provided in a space encased by said magnet rotor, said stator having a stator core with four poles on which armature coils are formed with bobbins, wherein the stator core having first magnetic pole cores formed at both ends of a connection body part of crisscrossed connection body parts and second magnetic pole cores formed at both ends of the connection body part.

Komatsu Fumito substantially discloses the claimed invention, except for the limitation *of the first magnetic pole magnetic flux surface having a concave section for partially increasing magnetic resistance on one side.*

Bernauer, however, teaching a stator having stator poles with magnetic flux surface having a concave section (b2) (fig 6) for the purpose of increasing the air gap therebetween the concave surface and the rotor so that the increasing magnetic resistance on one side thereof would enable the magnetic influence for obtaining low-loss energization.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the stator by configuring the first magnetic pole magnetic flux surface having a concave section for partially increasing magnetic resistance on one side, as taught by Bernauer. Doing so would enable the maximum air gap therebetween for increasing magnetic resistance on one side thereof would enable the magnetic influence for obtaining low-loss energization.

4. **Claims 5-6** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Komatsu Fumito (JP-2000-166287)** in view of **Holmes et al (US 6137202)**.

Komatsu Fumito substantially discloses the claimed invention, except for the limitations of the bobbin having have groove sections, each of which is formed into *a U- shape by a cylindrical core section, a wall section enclosing the cylindrical core section and abridging section connecting therebetween, the ring-shaped coils are fitted in the groove sections.*

Holmes, however, teaches a bobbin (fig 1-2) is formed into a U- shape by a cylindrical core section, a wall section enclosing the cylindrical core section and abridging section connecting therebetween, the ring-shaped coils are fitted in the groove section (fig. 2) for improving the insulating protection of the stator coil mechanically and electrically.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the stator by configuring the stator bobbin with a U- shape by a cylindrical core section, a wall section enclosing the cylindrical core section and abridging section connecting therebetween, the ring-shaped coils are fitted in the groove sections, as taught by Holmes. Doing so would provide an improved bobbin that not only electrically insulating the coil from the stator core but enhance mechanical support and protection for the stator coil.

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Allowable Subject Matter

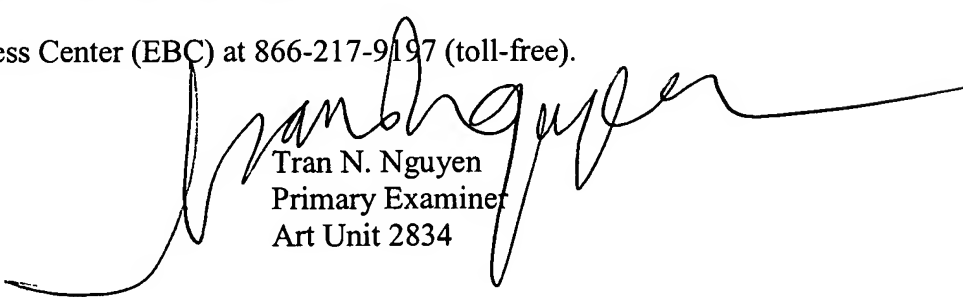
Claims 3-4 and 8-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tran N. Nguyen whose telephone number is (571) 272-2030. The examiner can normally be reached on M-F 7:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571)-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tran N. Nguyen
Primary Examiner
Art Unit 2834